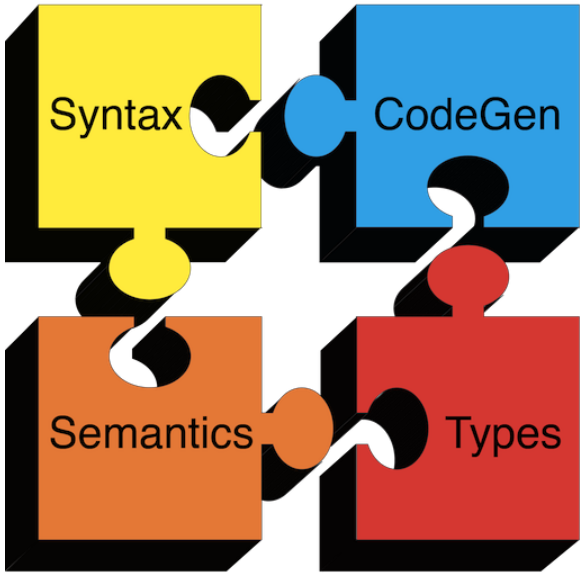
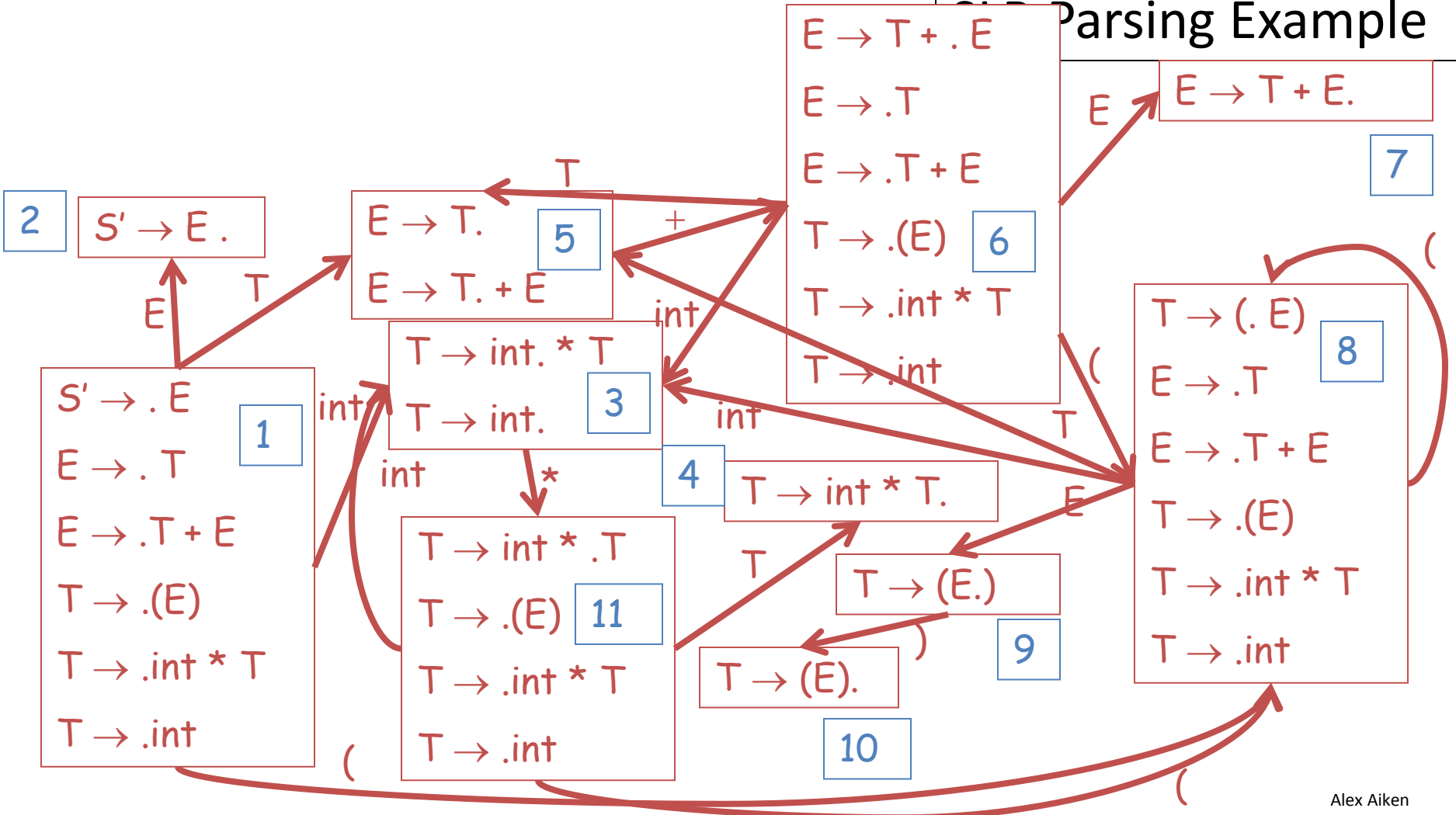


Compilers

SLR Parsing Example

Parsing Example

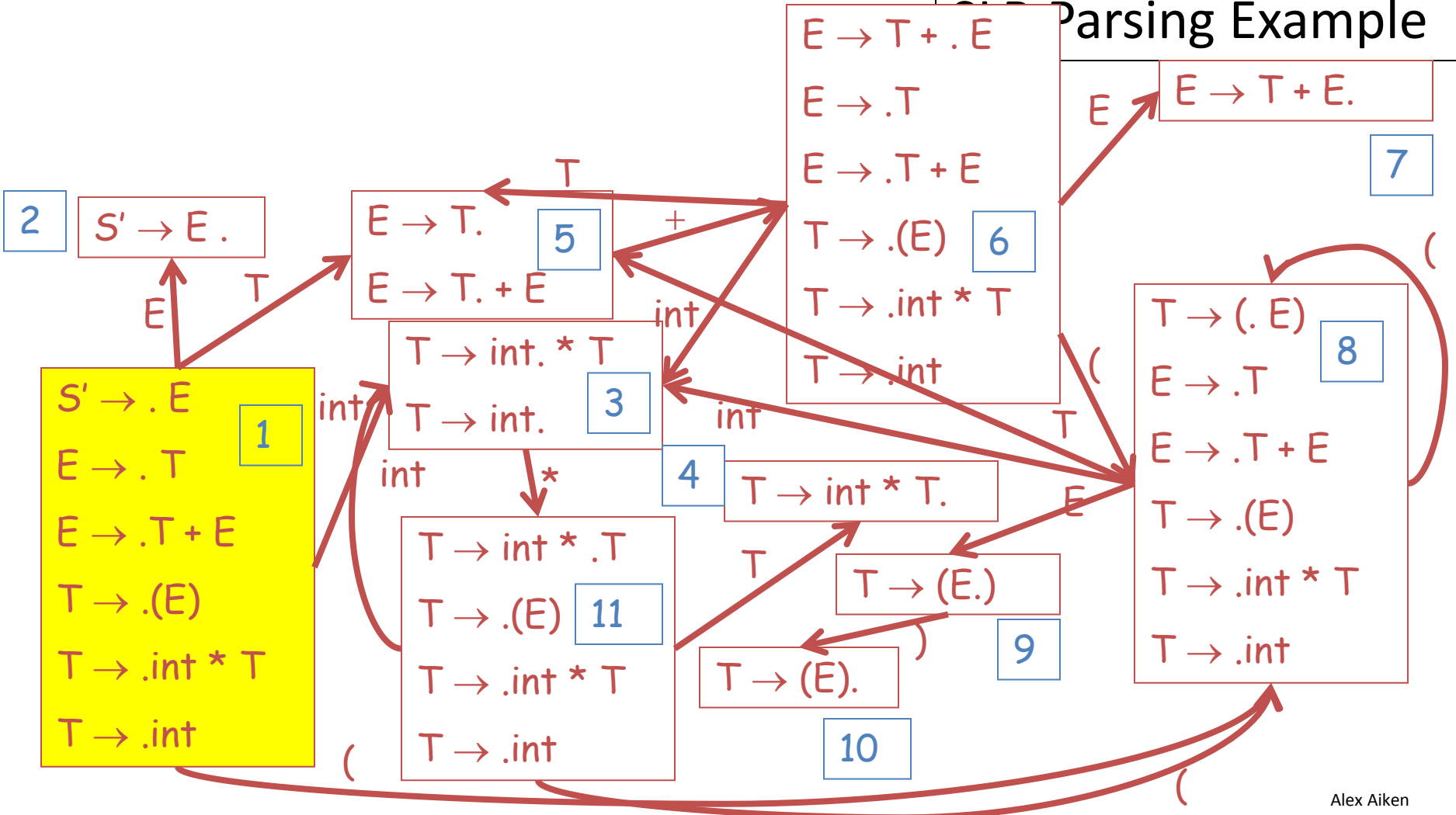


Alex Aiken

SLR Parsing Example

Configuration	*DFA Halt State*	*Action*
|int * int$		

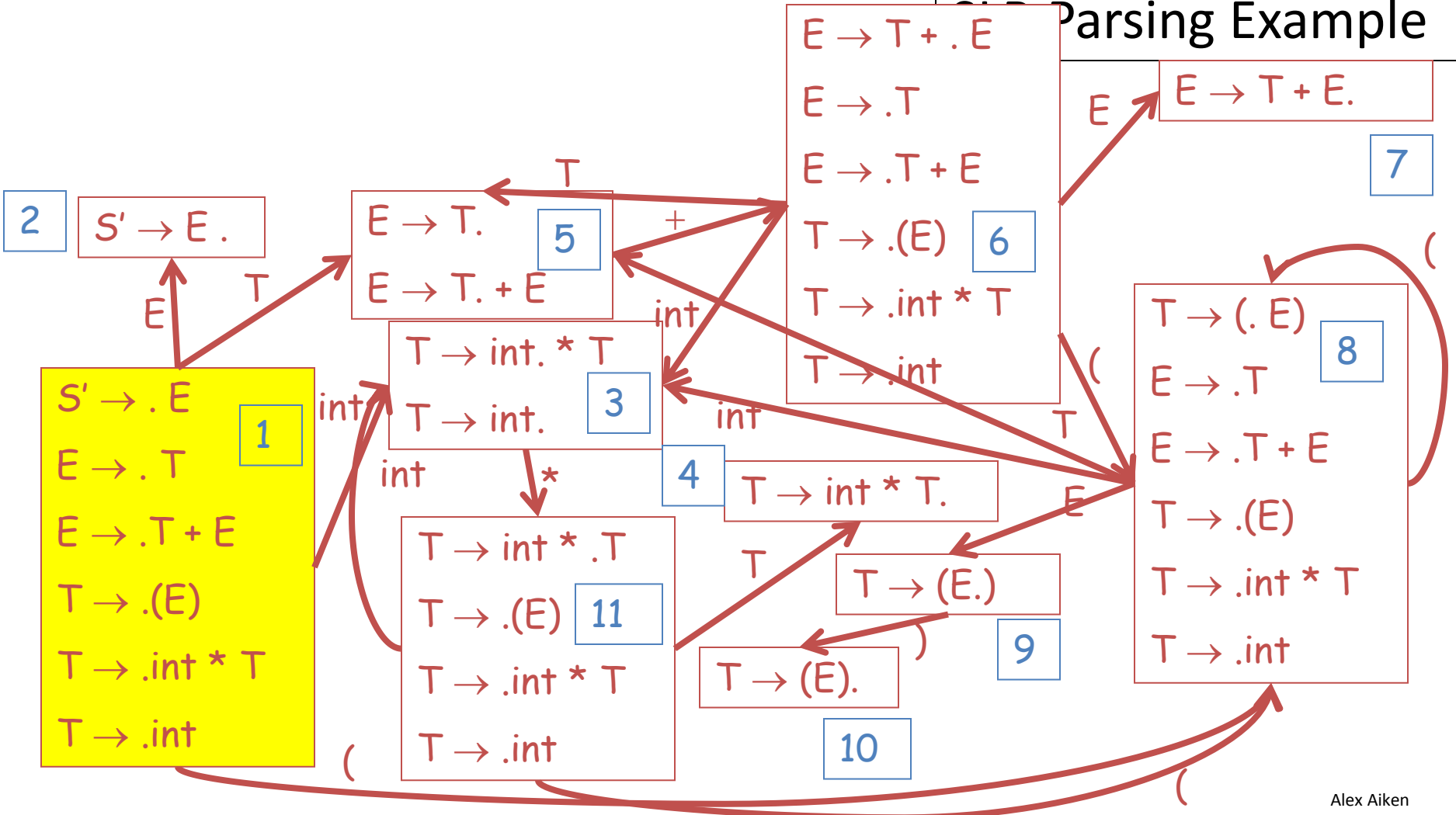
Parsing Example



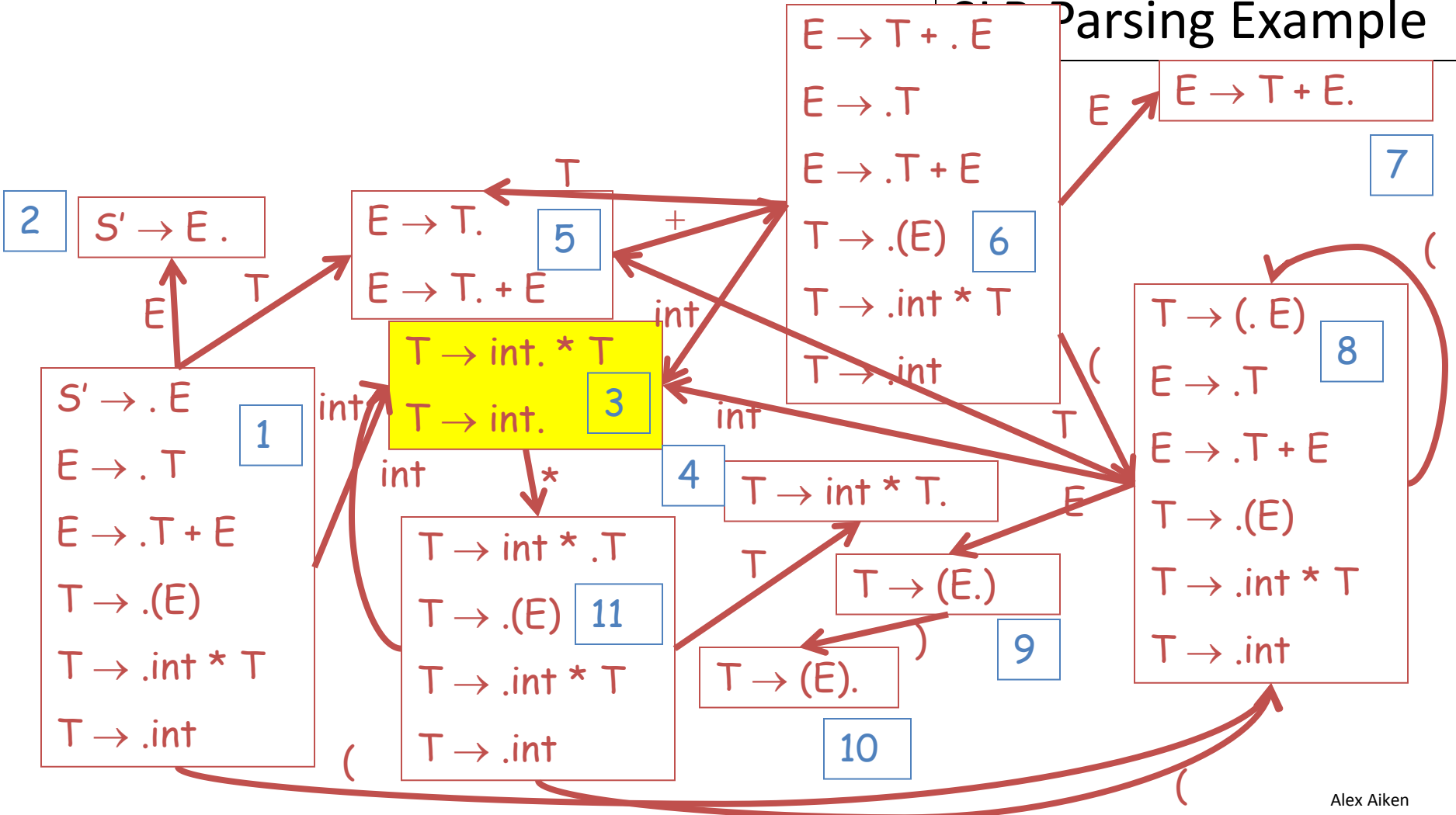
SLR Parsing Example

Configuration	*DFA Halt State*	*Action*
|int * int$	1	shift
int | * int$		

Parsing Example



Parsing Example

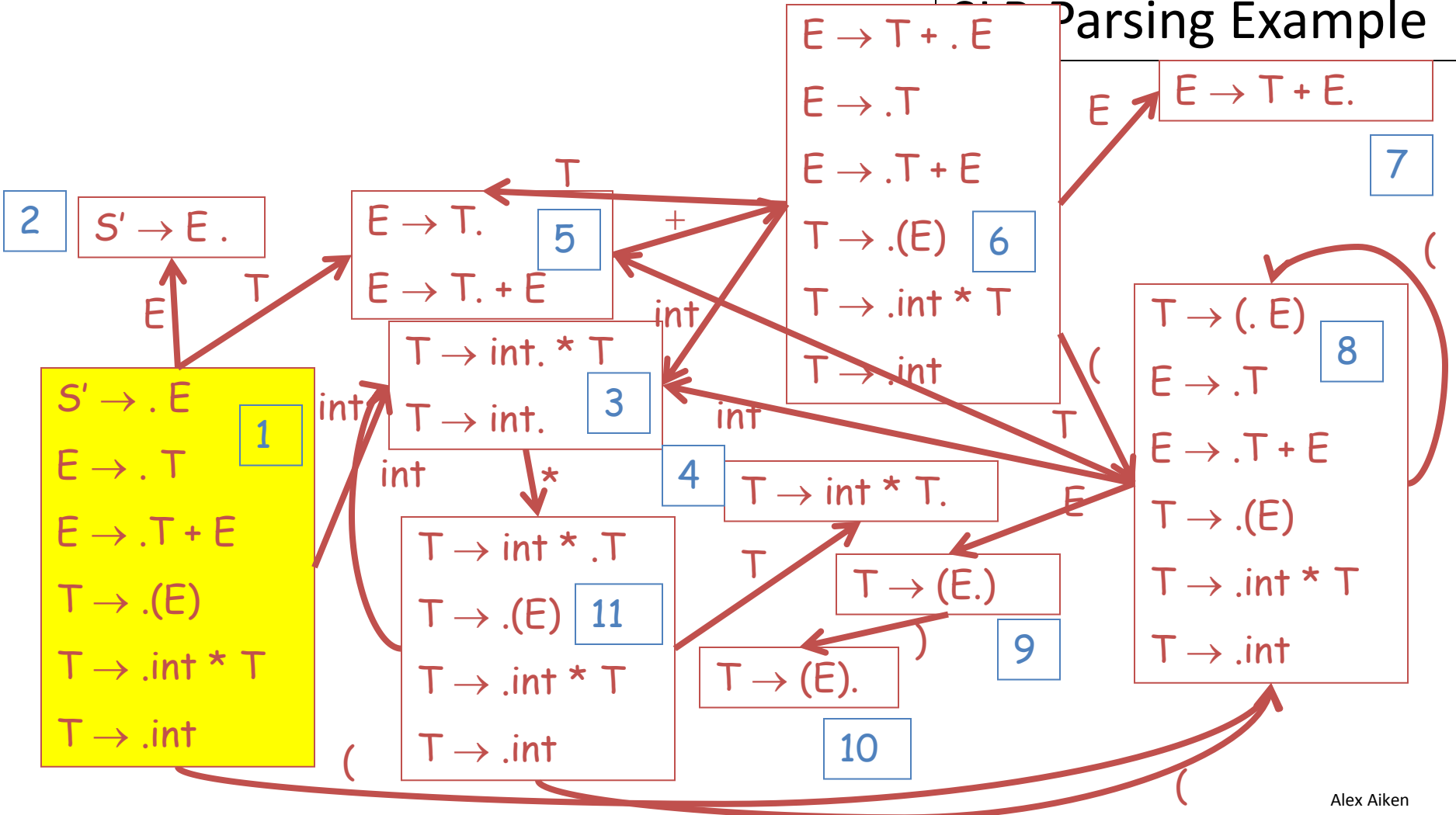


Alex Aiken

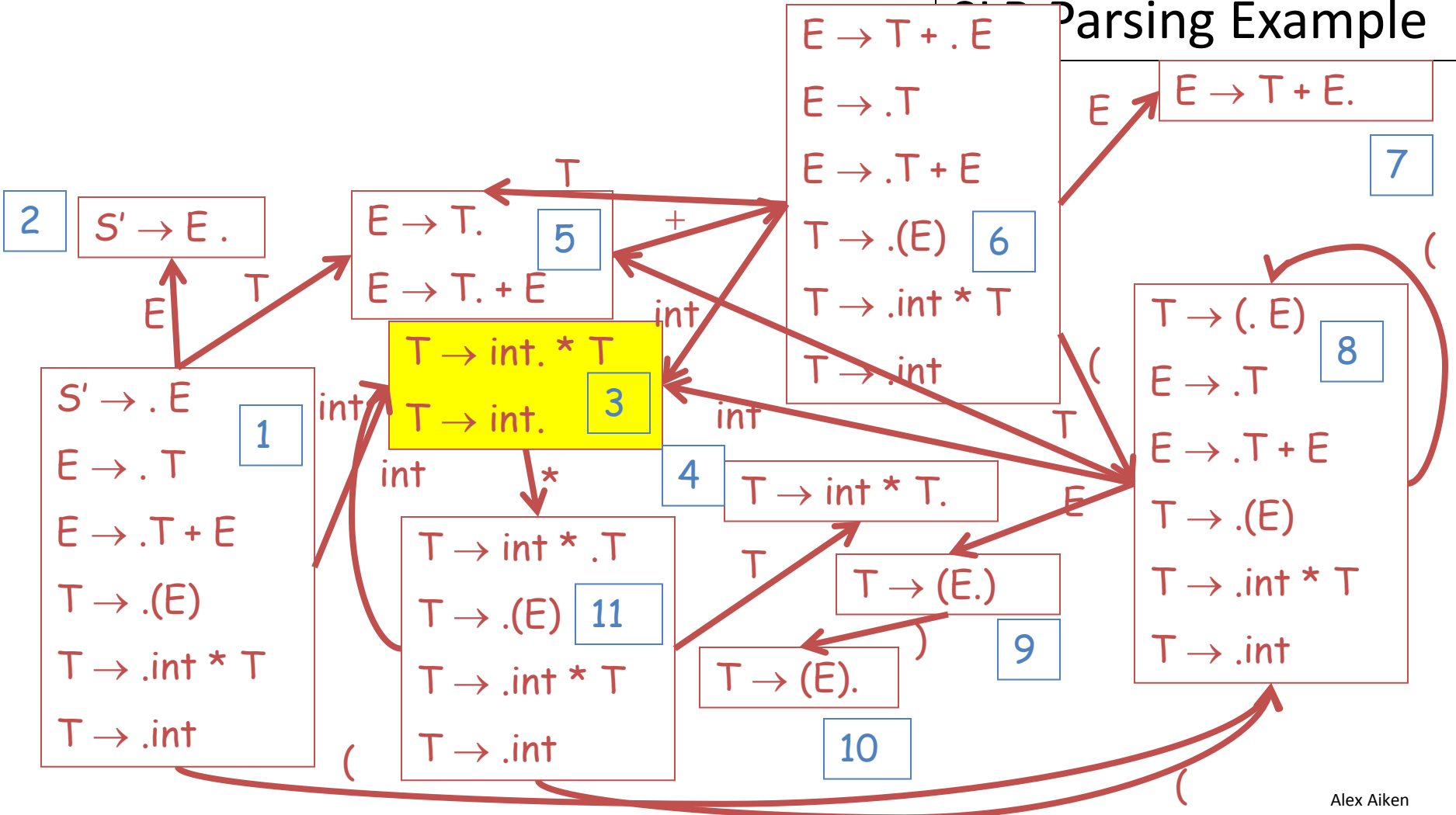
SLR Parsing Example

Configuration	*DFA Halt State*	*Action*
|int * int$	1	shift
int | * int$	3 * not in Follow(T)	shift
int * | int$		

Parsing Example



Parsing Example



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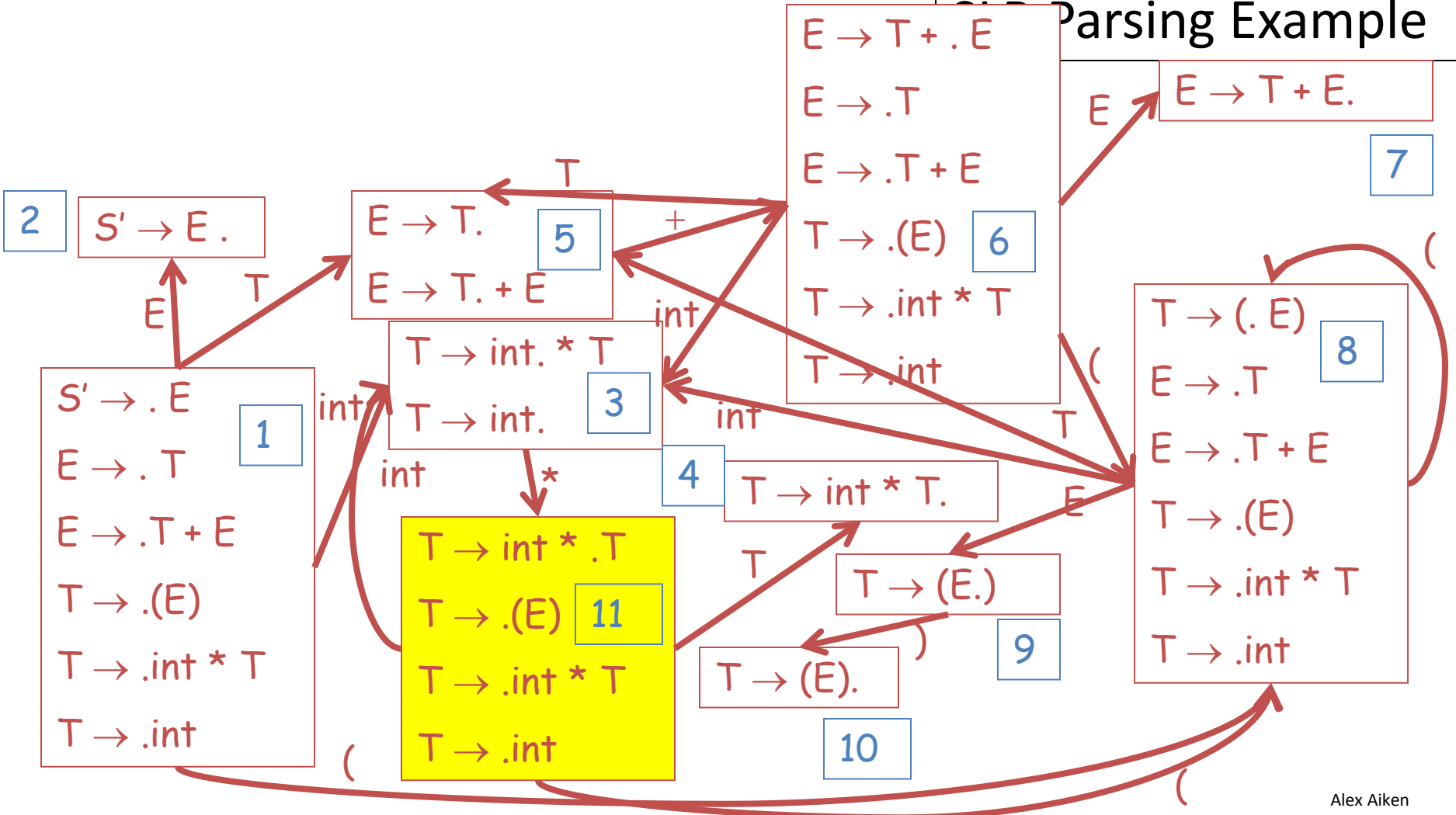
Parsing Example



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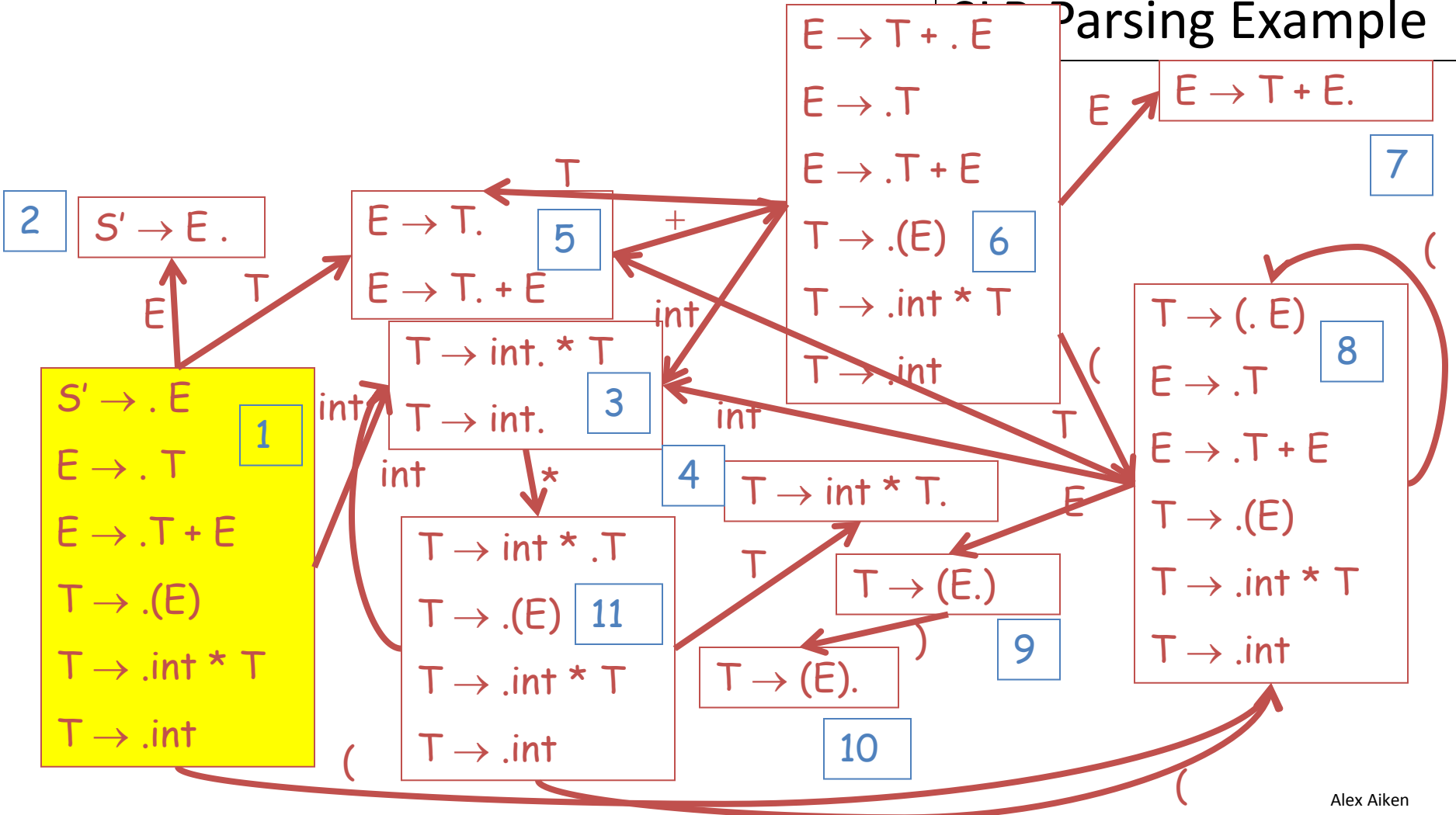
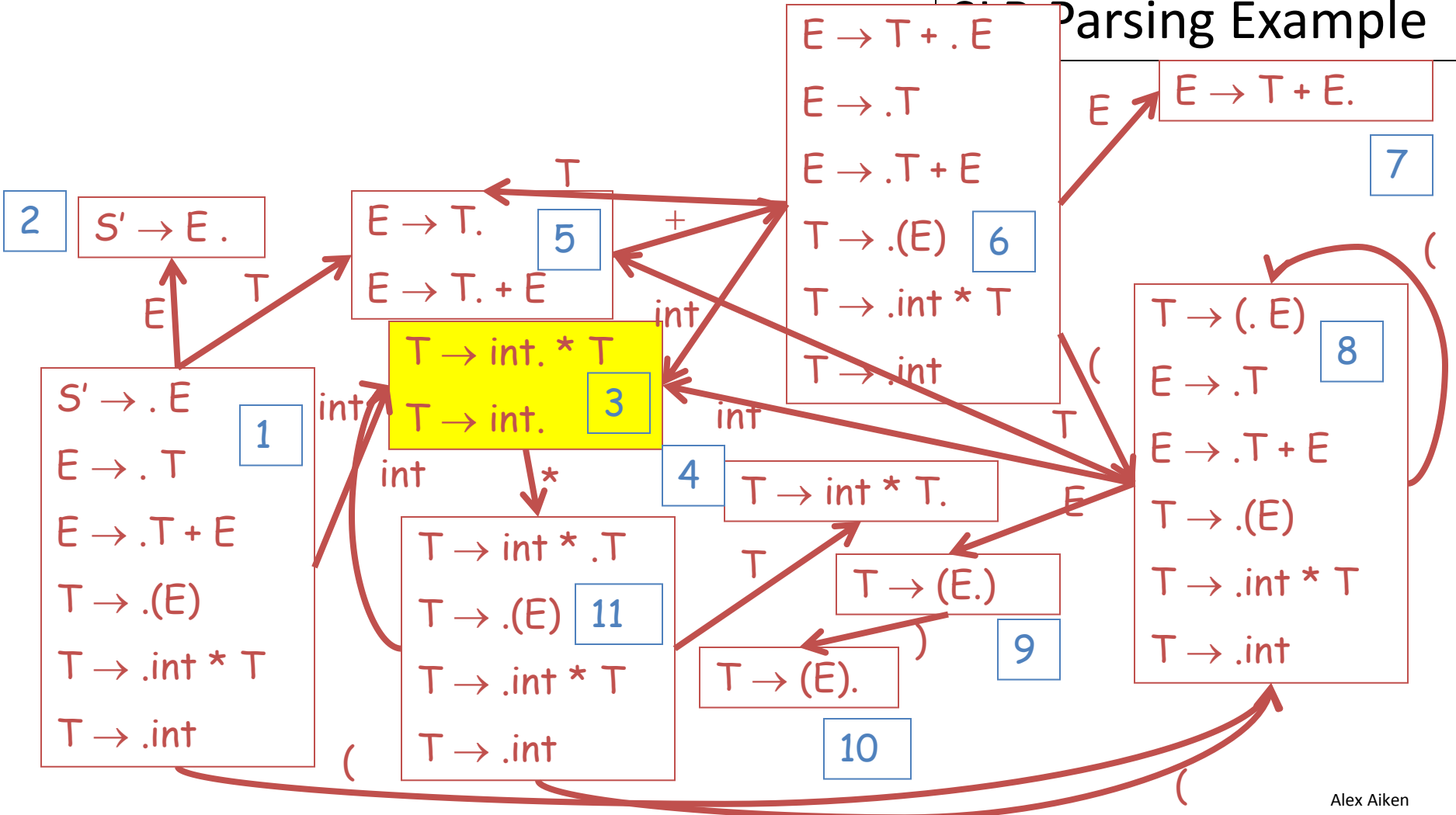
SLR Parsing Example

Configuration	*DFA Halt State*	*Action*
|int * int$	1	shift
int | * int$	3 * not in Follow(T)	shift
int * | int$	11	shift
int * int |$		

Parsing Example



Parsing Example



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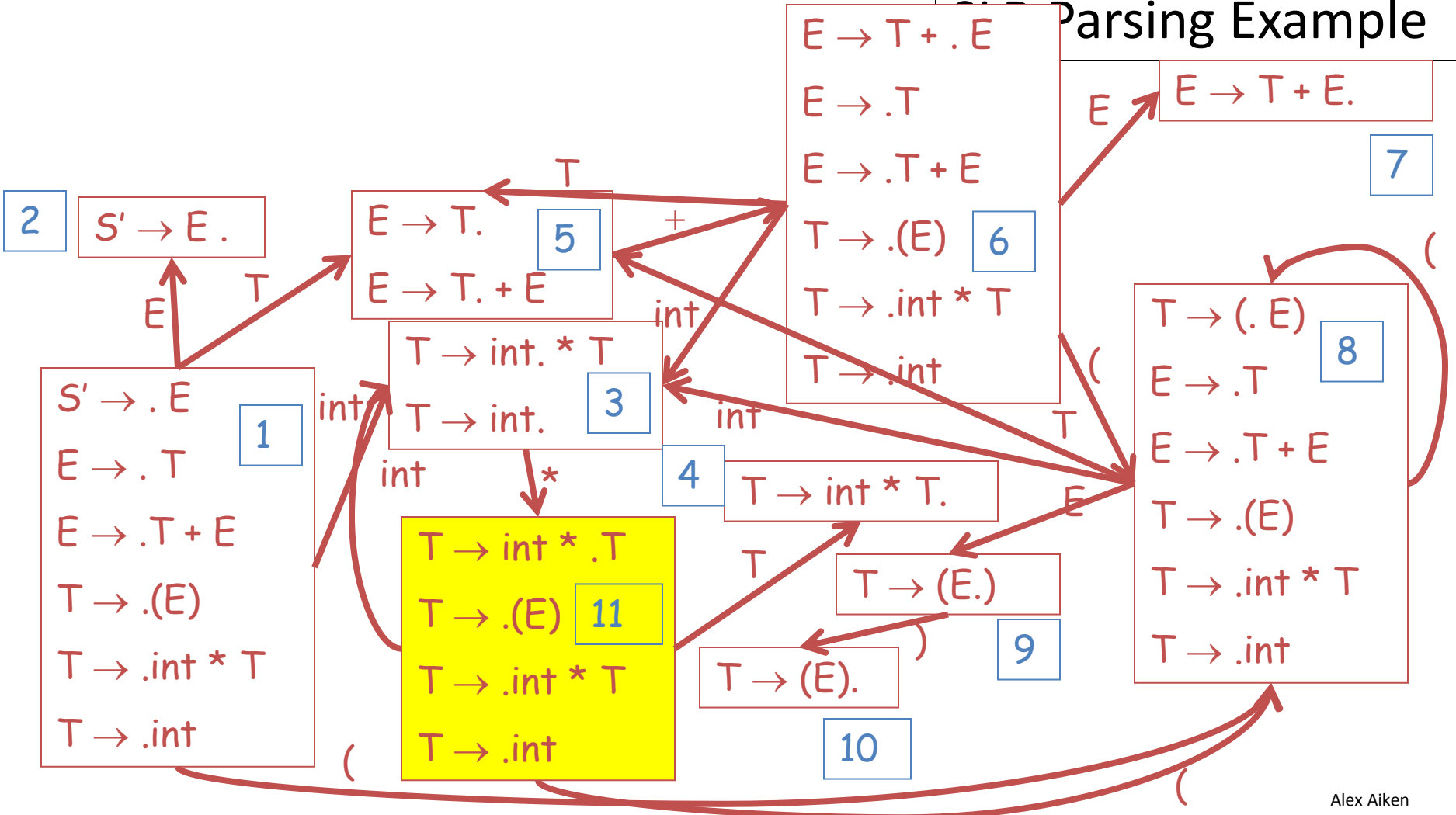
Parsing Example



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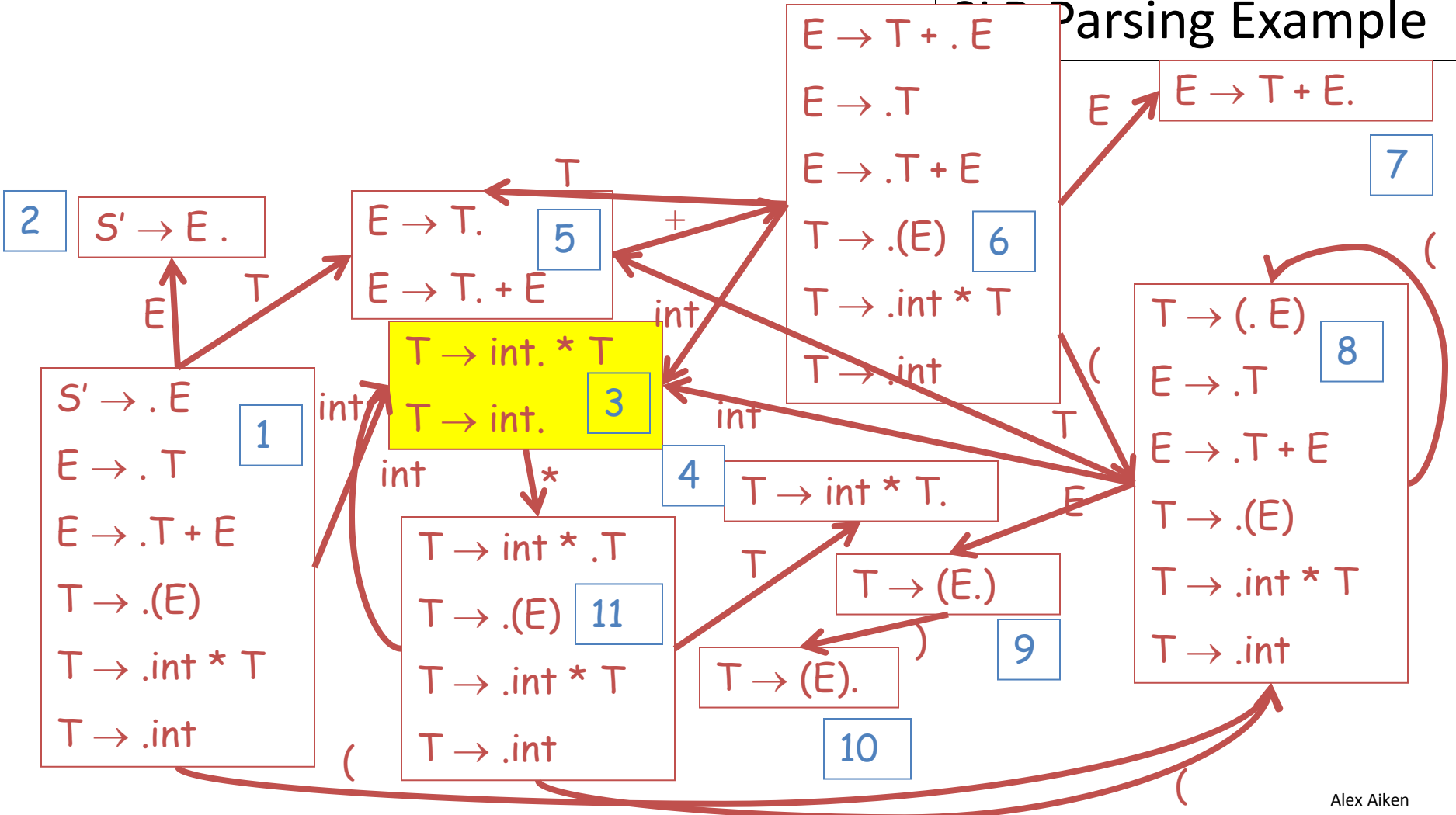
Parsing Example



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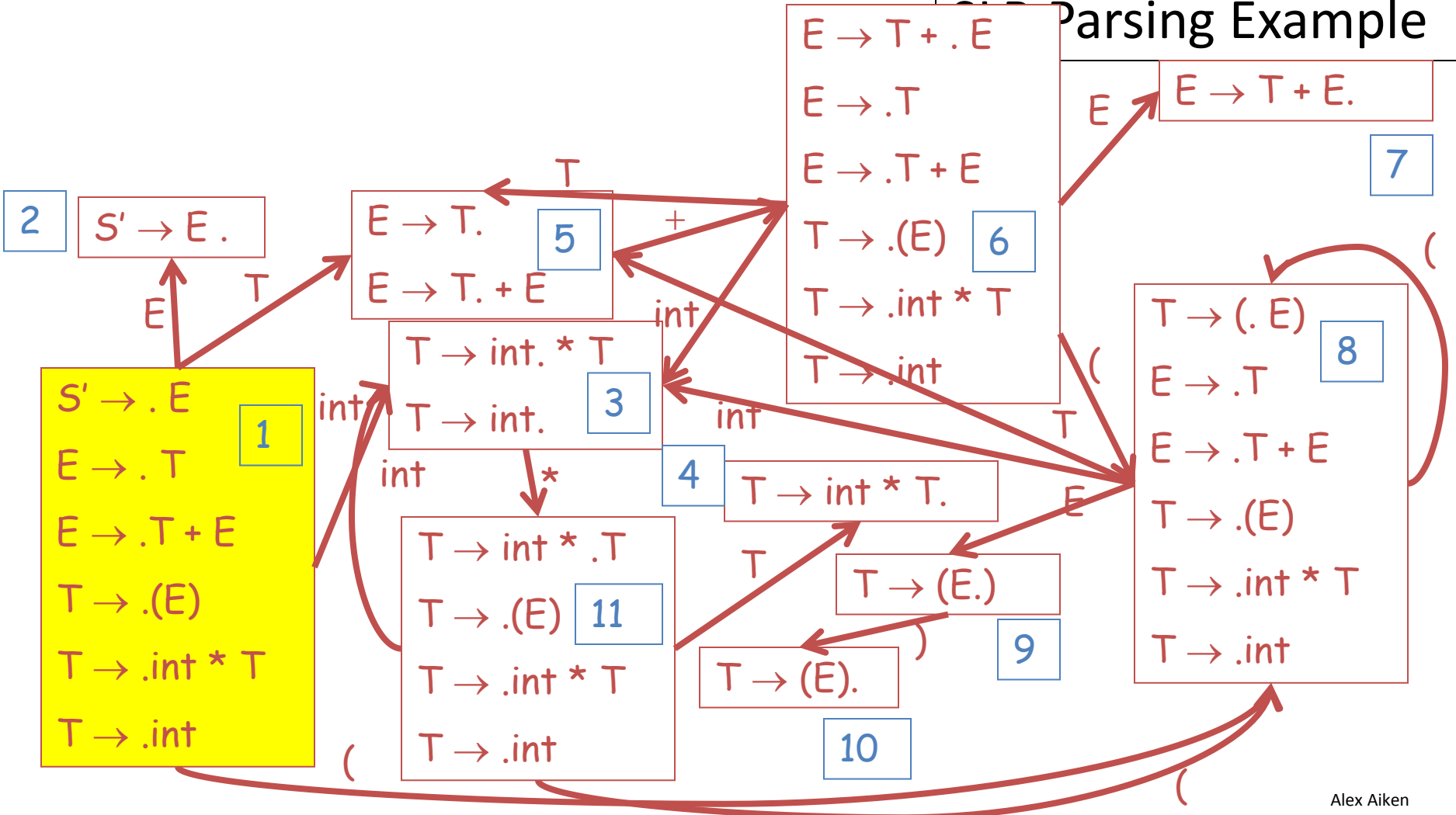
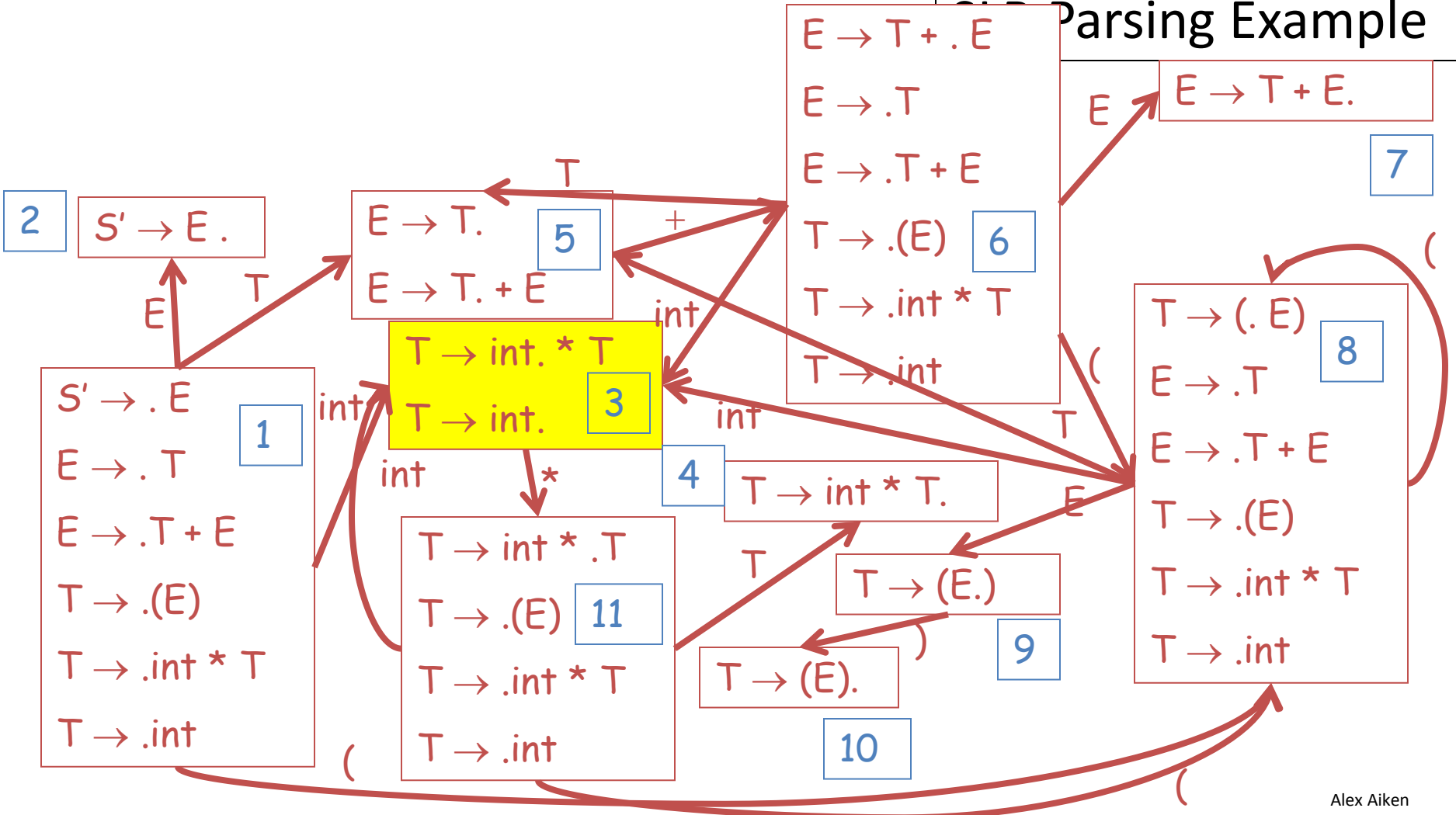
SLR Parsing Example

Configuration	*DFA Halt State*	*Action*
|int * int$	1	shift
int | * int$	3 * not in Follow(T)	shift
int * | int$	11	shift
int * int |$	3 $ ∈ Follow(T)	red. T→int
int * T |$		

Parsing Example



Parsing Example



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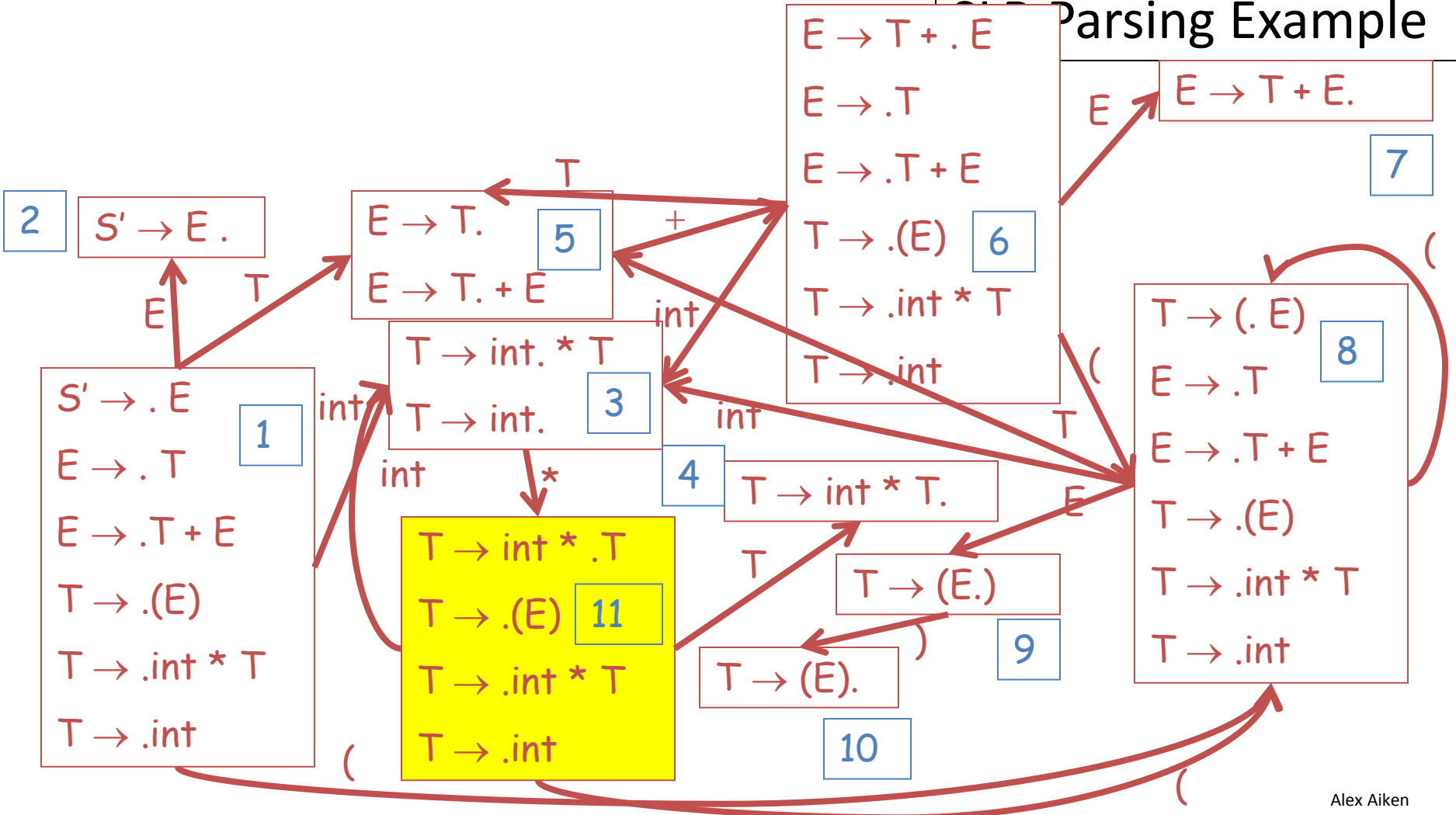
Parsing Example



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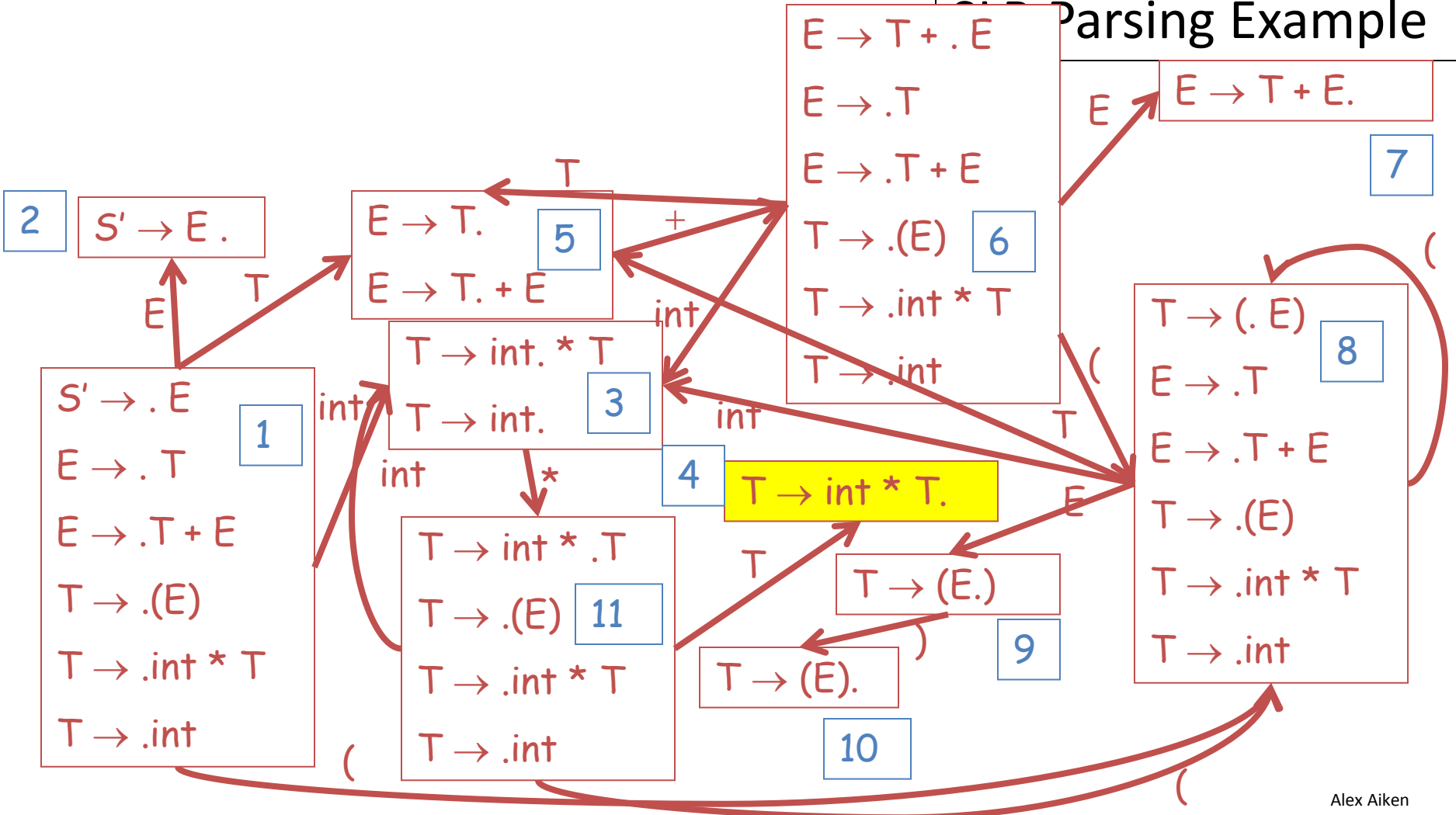
Parsing Example



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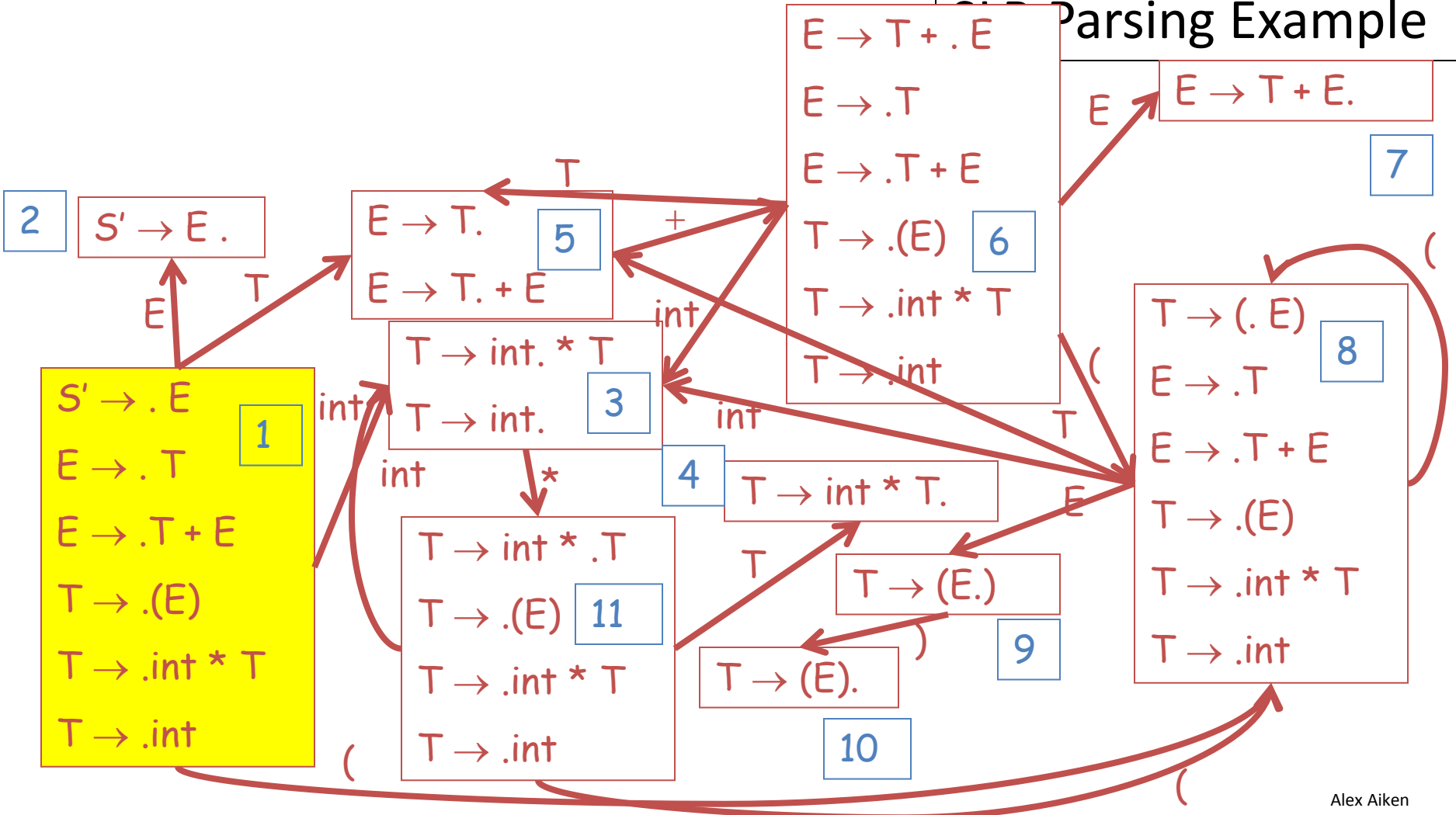
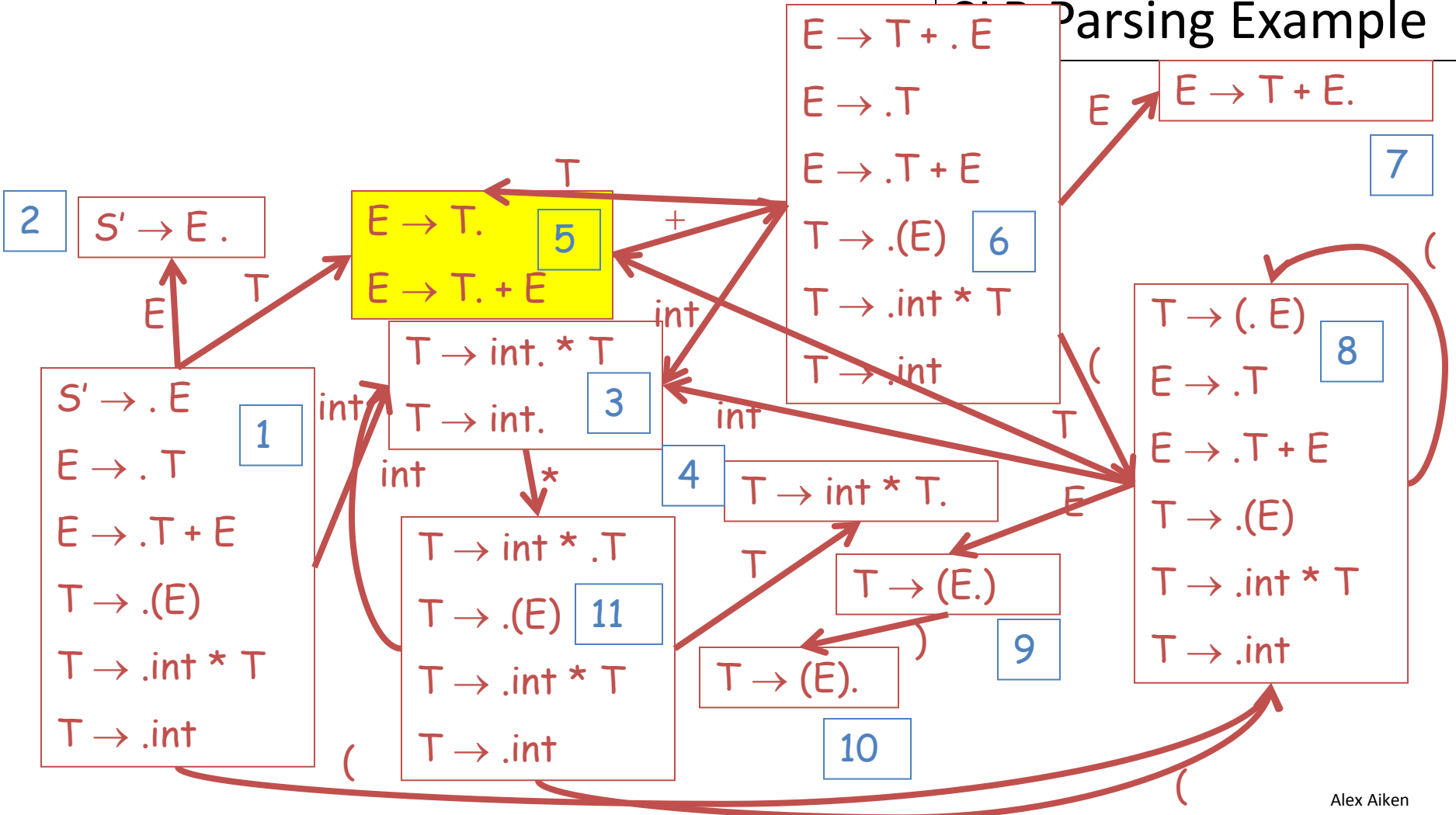
SLR Parsing Example

Configuration	*DFA Halt State*	*Action*
|int * int$	1	shift
int | * int$	3 * not in Follow(T)	shift
int * | int$	11	shift
int * int |$	3 $ ∈ Follow(T)	red. T→int
int * T |$	4 $ ∈ Follow(T)	red. T→int*T
T |$		

Parsing Example



Parsing Example



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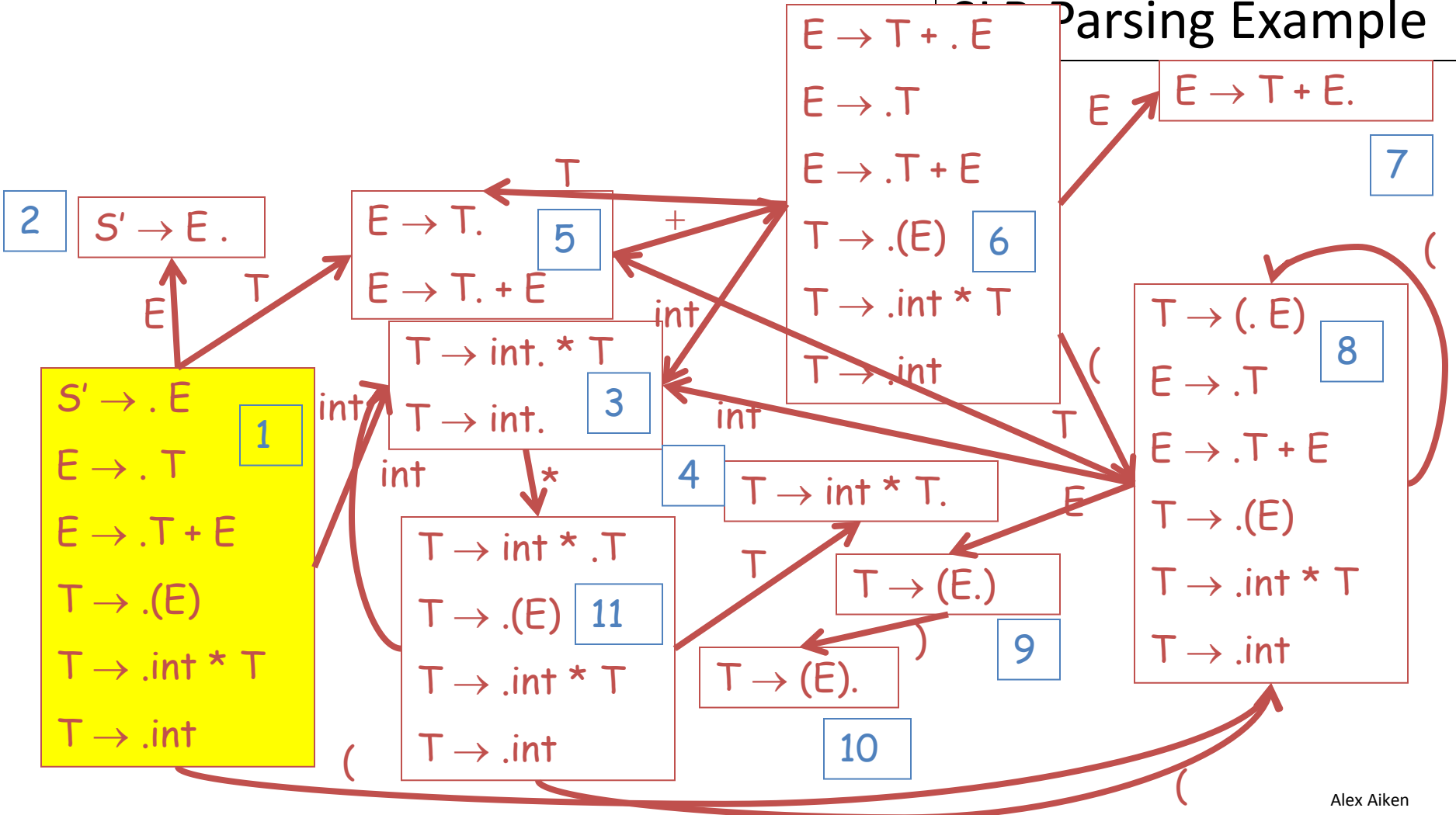
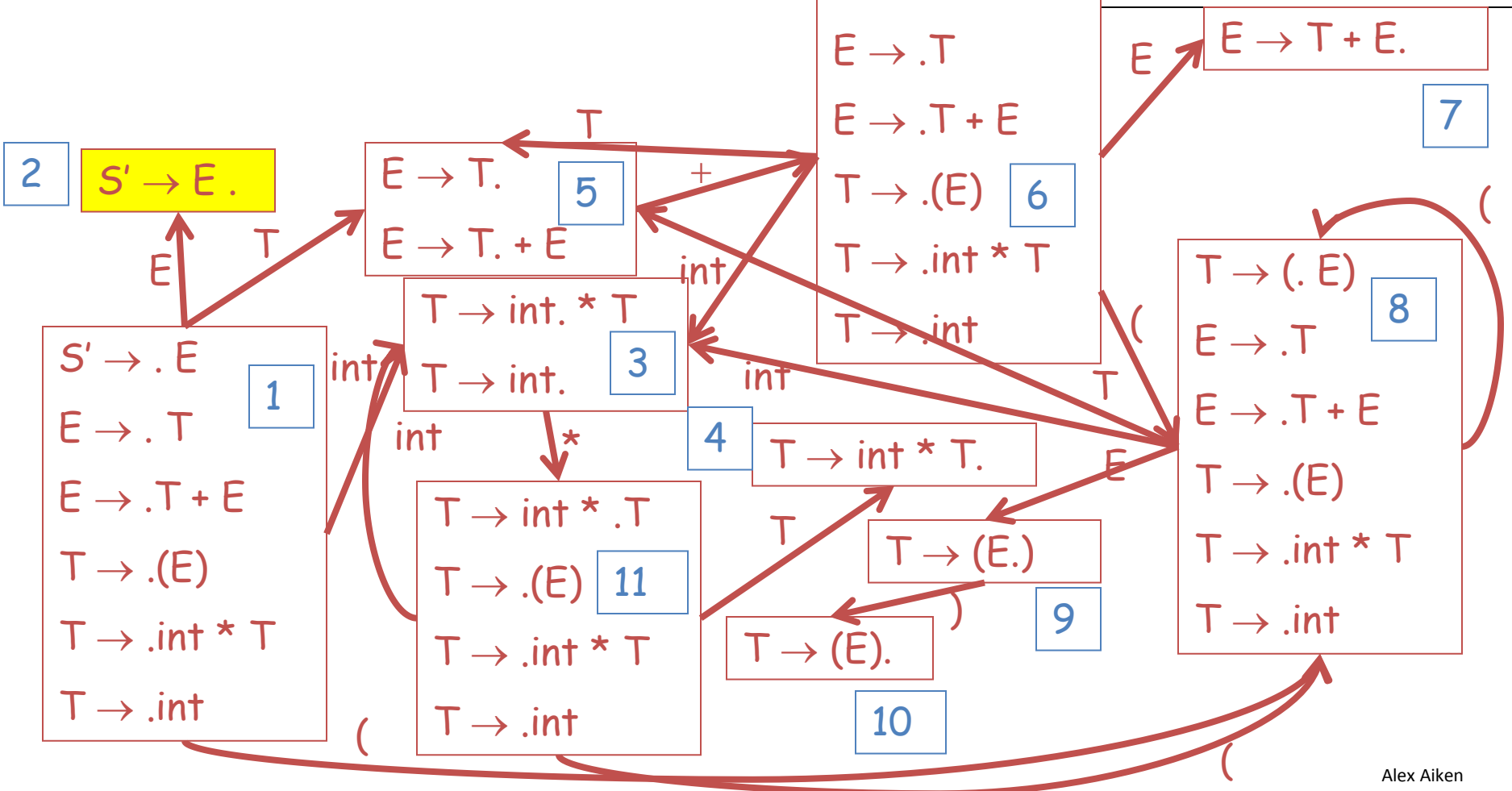
SLR Parsing Example

Configuration	*DFA Halt State*	*Action*
|int * int$	1	shift
int | * int$	3 * not in Follow(T)	shift
int * | int$	11	shift
int * int |$	3 $ ∈ Follow(T)	red. T→int
int * T |$	4 $ ∈ Follow(T)	red. T→int*T
T |$	5 $ ∈ Follow(E)	red. E→T
E |$		

Parsing Example



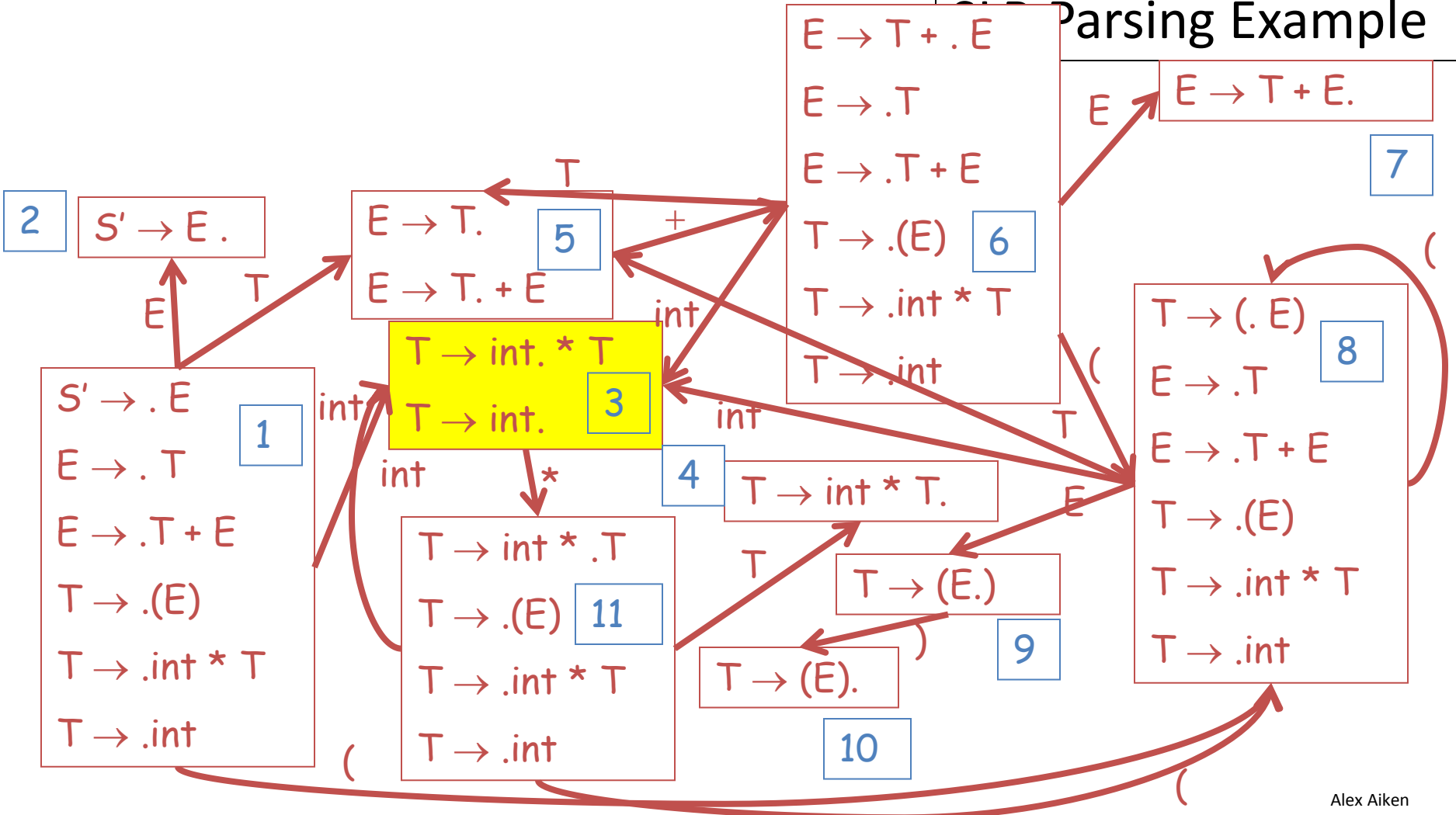
Parsing Example



SLR Parsing Example

Configuration	*DFA Halt State*	*Action*
|int * int$	1	shift
int | * int$	3 * not in Follow(T)	shift
int * | int$	11	shift
int * int |$	3 $ ∈ Follow(T)	red. T→int
int * T |$	4 $ ∈ Follow(T)	red. T→int*T
T |$	5 $ ∈ Follow(T)	red. E→T
E |$		accept

Parsing Example



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SLR Parsing Example

Using the DFA on the previous slide, choose the next action for the given parse state

Configuration	*DFA Halt State*
int * int|+ int $	3

- ○ shift
- ○ red. T → int
- ○ red. T → int * T
- ○ accept

To show the automaton, click "Hide Question"

↓